



Water treatment plants protected from loss of power

Generators are prepared for current and future needs

The Norfolk Department of Utilities recently completed the installation of emergency standby power at the Moores Bridges Water Treatment Plant. The five new backup generators at Moores Bridges and the previously-installed generator at the 37th Street Water Treatment Plant ensure that high quality drinking water will continue to be produced and pumped to all of Norfolk's customers, even in the face of extended power outages.



From the outside, the five emergency standby generators at Moores Bridges look like trailer-sized boxes. The two 15,000-gallon tanks supply the generators with fuel.

"As accurate as the weather service is nowadays," he said, "we still didn't know if Isabel was going to hit us directly. It could have taken a turn on Tuesday, but we needed to make a \$100,000.00 decision to

Hampton Roads will not soon forget the impact of Hurricane Isabel on the region. While the storm left thousands of residents without power for as many as 14 days, Norfolk water customers did not go without essential water services. Three rented portable generators at Moores Bridges and the permanent standby generator at 37th Street kept the treated water flowing.

Ahead of schedule, within budget

On April 14, 2003, the emergency standby power project began at Moores Bridges Water Treatment Plant. In less than a year, the original contract timeframe, the generators are operational.

The \$3.7 million project includes five 1600 kilowatt generators fueled by two 15,000-gallon diesel fuel tanks.

"With 30,000 gallons of fuel, the generators will power the whole plant and continue water treatment for about four days before we would need to refuel," said Rick Saul, Water Production Manager.

According to Mr. Saul, this investment assures the city that its water system is prepared for loss of power during disasters such as Isabel.



Two power feeds ensure that the generators can keep the entire water treatment plant in operation during a power outage.

bring in the generators before then. If we had waited, they would have been rented by someone else. Everyone was preparing for the worst."

In short, if the generators were brought in and the hurricane had not hit, the city could have spent up to \$50,000.00 without any direct and measurable advantage. If the generators had not been brought in, the city would have saved the money, but that could have resulted in a shutdown of the water treatment process.

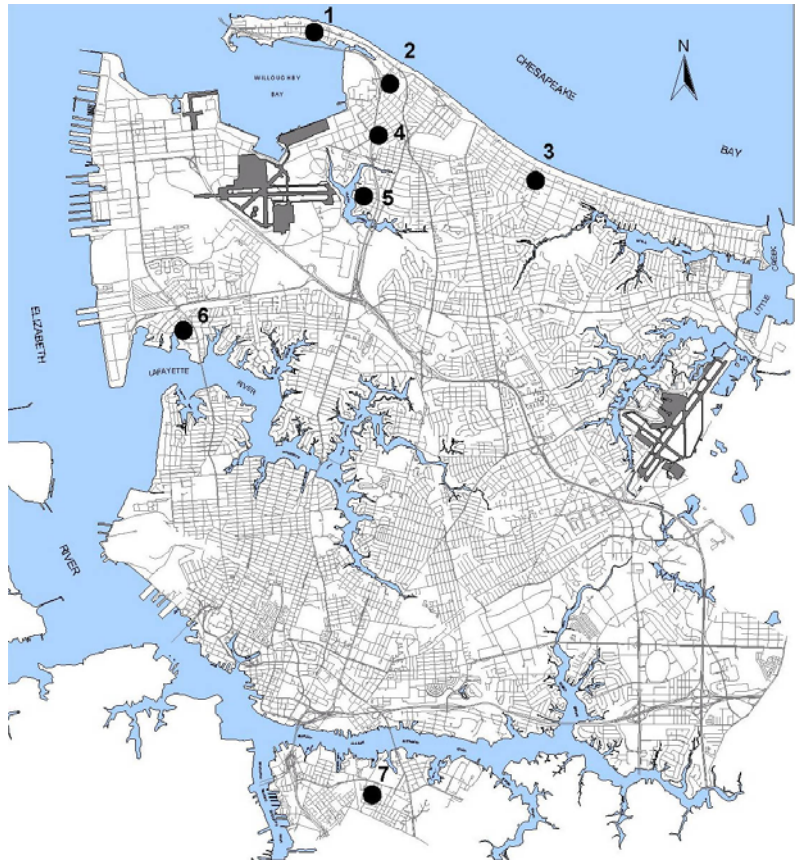
Set for the future

Now the City of Norfolk never has to worry about those types of decisions again. The water treatment plants are

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Construction schedule for upcoming water and sewer projects:

1. **Willoughby Water and Sewer Replacement, Phase 2** - Will be advertised late May 2004. Estimated construction costs: \$1,200,000.00/sewer; \$800,000.00/water
2. **Sewer Pump Station # 16** - Bids received in March. Estimated construction cost: \$1,300,000.00
3. **Sewer Pump Station # 23** - Bids received in March. Estimated construction cost: \$850,000.00
4. **Sewer Pump Station # 15** - Bids received in February. Estimated construction cost: \$940,000.00
5. **Sewer Pump Station # 28** - Bids will be received early April 2004. Estimated construction cost: \$125,000.00
6. **Glencove/Lochaven Water and Sewer Replacement, Phase 2** - Will be advertised July 2004. Estimated construction costs: \$1,200,000.00/sewer; \$750,000.00/water
7. **Campostella Water and Sewer Replacement, Phase 2** - Will be advertised late April 2004. Estimated construction costs: \$1,850,000.00/sewer; \$1,000,000.00/water



Rosenthal elected president of VA Lakes and Watershed Association

David Rosenthal, Reservoir Manager for the Department of Utilities, was recently elected president of the Virginia Lakes and Watersheds Association (VLWA), which conducts scientific and educational efforts to protect the quality and uses of Virginia's lakes and watersheds.

A member of VLWA since 1991, Mr. Rosenthal has served on the Board of Directors since 1996, was membership chair from 1998 to 2003, and vice president from 1997 to 2003. He is also active in the North American Lake Management Society.



David Rosenthal,
Reservoir Manager

In 1990 Mr. Rosenthal came to the City of Norfolk from the City of New York Department of Environmental Protection. Since joining the City of Norfolk, he has earned his Master of Science degree in Oceanography and Limnology from Western Connecticut State University. In 1994, he became the only lake manager in Virginia certified by the North American Lake Management Society, a title he has maintained every year since. ♦

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prepared for any power outage.

"If the power grid were to go down like happened in New York, Moores Bridges would still operate," said Mr. Saul.

The larger of the city's two water treatment plants, Moores Bridges currently treats about 60 million gallons of water a day (MGD), which can be handled by the massive generators. In the future, should the need grow to 108 MGD, the treatment plant and its generators stand ready to treat and pump that volume as well.

Upcoming protection for raw water pumping station

Unless the lake water is pumped to the water treatment plants, there can be no finished drinking water for Norfolk's customers. The Department of Utilities is now planning for the installation of backup generators for the Western Branch Pumping Station, which supplies untreated lake water to both Moores Bridges and 37th Street.

The design phase for the Western Branch Pumping Station emergency power project is 90% complete. Like the treatment plant generators, those at Western Branch will keep the water flowing, even in the face of a power outage, and will allow the City of Norfolk to continue to serve its 700,000 customers with high quality drinking water. ♦